Russian Entomol. J. 26(3): 207–209

A new species of the leafhopper genus *Macropsis* Lewis, 1836 (Homoptera: Cicadellidae: Macropsinae) from the United Arab Emirates

Новый вид цикадок рода *Macropsis* Lewis, 1836 (Homoptera: Cicadellidae: Macropsinae) из Объединенных Арабских Эмиратов

D.Yu. Tishechkin
Д.Ю. Тишечкин

Department of Entomology, Faculty of Biology, M.V. Lomonosov Moscow State University, Vorobyevy Gory, Moscow 119234 Russia. E-mail: macropsis@yandex.ru

Кафедра энтомологии Биологического факультета Московского государственного университета имени М.В. Ломоносова, Воробьёвы Горы, Москва 119234 Россия.

KEY WORDS: Homoptera, Auchenorrhyncha, Cicadellidae, Macropsinae, *Macropsis*, Arabia, new species.

КЛЮЧЕВЫЕ СЛОВА: Homoptera, Auchenorrhyncha, Cicadellidae, Macropsinae, *Macropsis*, Аравия, новый вид.

ABSTRACT. *Macropsis latilorata* **sp. n.** from the United Arab Emirates is described. A new species differs from other *Macropsis* species by very wide lorae with side margins parallel to each other and, apparently, is related to some African *Macropsis* group associated with *Acacia* spp.

РЕЗЮМЕ. Описан *Macropsis latilorata* **sp. n.** из Объединённых Арабских Эмиратов. Новый вид отличается от других представителей рода необычайно широкими уздечками с параллельными друг другу боковыми краями и, возможно, принадлежит к одной из африканских групп *Macropsis*, трофически связанных с акациями.

Presently, the large and diverse genus *Macropsis* Lewis, 1836 (Homoptera: Cicadellidae: Macropsinae) is well studied in Nearctic [Hamilton, 1983] and Northern Palaearctic [Tishechkin, 1999, 2003, 2015]. North-Palaearctic species can be subdivided into several natural groups according to their host associations; these groups as a rule are also different in morphological traits and external appearance [Tishechkin, 2016]. The largest group (about 40 species) is associated with Salicaceae, more than 10 species from the Russian Far East, Northern India, China, and Japan feed on oaks *Quercus* spp. [Li et al., 2014], 2 species are associated with elms (*Ulmus* spp.), about 10 species feed on Rosaceae (*Spiraea* spp., *Rosa* spp., and *Rubus* spp.), 5 species are associated with Elaeagnaceae (*Elaeagnus* spp. and *Hippophae rhamnoides* L.), 2 species feed on *Berberis integerrima* Bunge, 1 species feeds on desert poplars (*Populus*) from the subgenus *Turanga* (Bunge) Dode, and one species — on *Urtica* spp.

Data on species from the deserts of North Africa, Middle East, and southern regions of Central Asia are scarce and includes only some original descriptions [Dlabola, 1957, 1979, 1994]. Meanwhile, judging by these descriptions, in this region there are specific groups of species whose host associations are for the most part unknown. In the present paper one peculiar species from the United Arab Emirates is described.

Macropsis latilorata Tishetshkin, **sp. n.**
Figs 1–10.

MATERIAL. Holotype, ♂: United Arab Emirates, Fujairah, Wadi Wurayah, N 25°23.378' E 56°18.360', 22.III.2017, V.M. Gnezdilov, on light during the night, deposited in the collection of Zoological Institute of Russian Academy of Sciences, St. Petersburg.

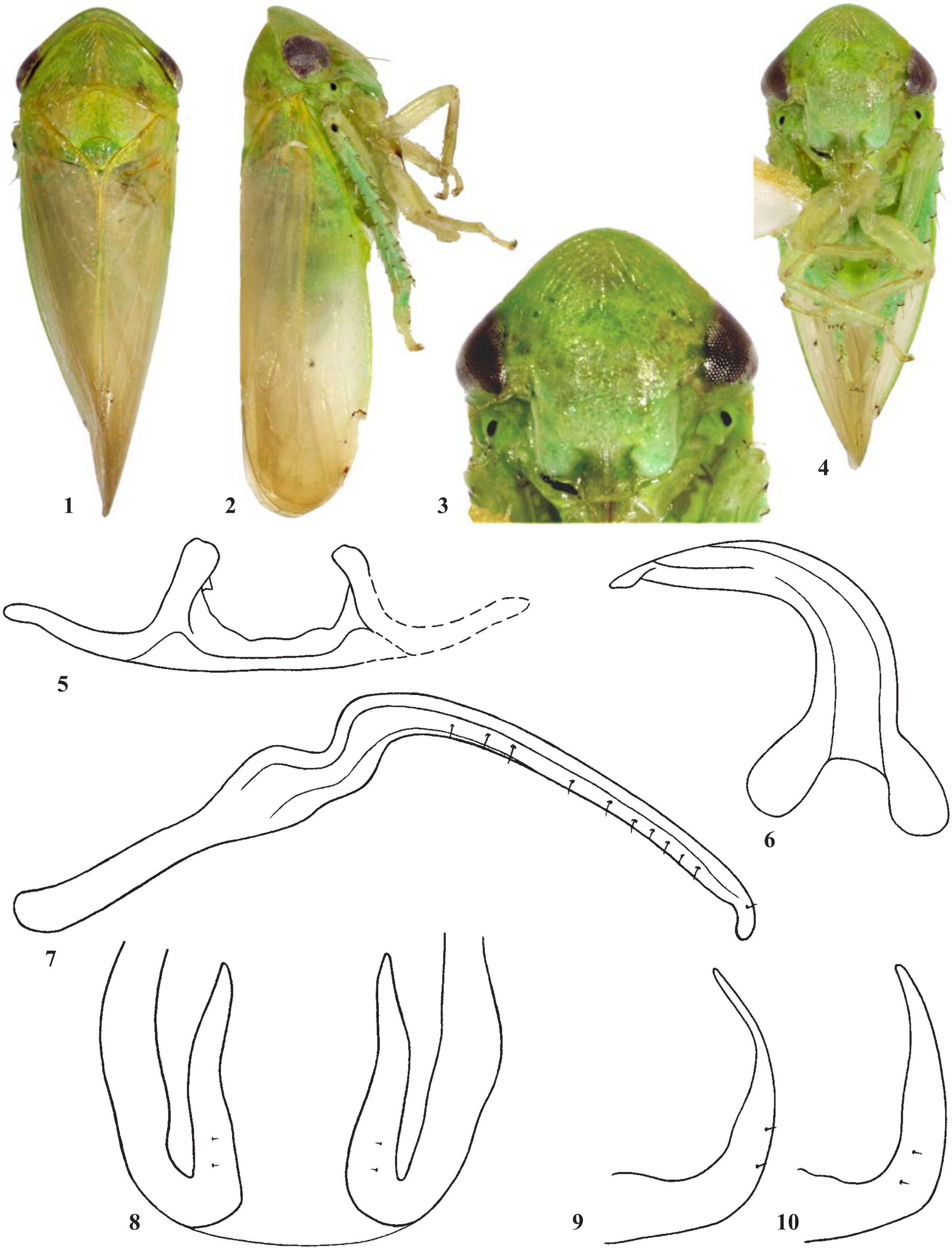
DESCRIPTION. Body bright green. Scutellum with green medial part and yellowish basal triangles; apex has brighter coloration than the surrounding areas (Figs 1–2). Proepimeron with a round black spot. Fore and middle legs pale brownish. Hind legs green, hind tibiae with a round black basal spot on the outer surface, bases of macrosetae with black margins (Fig. 2). Forewings yellowish hyaline, somewhat darker in apical parts, main veins greenish in basal parts.

Head rather widely angular, in dorsal view of approximately the same length in the middle and at the sides (Fig. 1). Lorae very wide, with side margins parallel to each other (Figs 3–4). Clypellus abruptly truncated, rectangular at end (Figs 3–4). Pronotum with widely rounded fore margin and oblique striation; median keel faint, almost invisible (Fig. 1).

Body length (including tegmina) 3.6 mm.

Sternal apodemes of 2nd abdominal segment in male narrow triangular at bases, with parallel-sided angulated lobes, separated by very broad U-shaped notch (Fig. 5).

Penis in side view rather narrow; stem bent at about right angle, with slight constriction at bend (Fig. 6). Style slender, almost parallel-sided, with rounded apex smoothly bent at an obtuse angle (Fig. 7). Pygofer processes some-



Figs 1–10. *Macropsis latilorata* **sp.n.**: 1 — dorsal view; 2 — lateral view; 3 — face, frontal view; 4 — ventral-frontal view, face in the plane of the photograph; 5 — male abdominal apodemes of the 2nd sternite; 6 — penis, lateral view; 7 — style; 8 — pygofer processes, caudal view; 9 — pygofer process, lateral view; 10 — same, lateral-caudal view.

Рис. 1–10. *Macropsis latilorata* **sp.n.**: 1 — сверху; 2 — сбоку; 3 — лицо, спереди; 4 — снизу-спереди, лицо в плоскости фотографии; 5 — аподемы II брюшного стернита самца; 6 — пенис, сбоку; 7 — стилус; 8 — отростки пигофора, сзади; 9 — отросток пигофора, сбоку; 10 — то же, сбоку-сзади.

what sinuate in caudal view (Fig. 8), distinctly bent forward in apical half, flattened and twisted along the longitudinal axis; for this reason in side view they look abruptly narrowed in apical part (Figs 9–10).

DIAGNOSIS. Differs from all other species by very wide parallel-sided lorae. By the shape of male genitalia (rather narrow penis and slender style with rounded apex) somewhat resembles species associated with *Spiraea* spp. and *Ulmus* spp., but distinctly differs from them by bright green coloration (pale with black pattern or brown in *Spiraea*-dwelling species and brown in males of *Ulmus*-dwelling species). In combination of green coloration and the shape of penis and style the new species is similar to some African species from *minuscula* group [Linnavuori, 1976] and possibly belongs to some African *Macropsis* lineage associated with *Acacia* spp.

ETYMOLOGY. Species name derives from the combination of Latin words *latus* (wide) and *lorum* (bridle; in Auchenorrhyncha, a part of face) indicating that this species has very wide lorae.

ACKNOWLEDGEMENTS. I am greatly indebted to Dr. Vladimir Gnezdilov (Zoological Institute, Russian Academy of Sciences, St. Petersburg) for collecting and loan of the specimen for this study. Field research was carried out under the patronage of the Crown Prince of Fujairah His Highness Sheikh Mohammed bin Hamad bin Mohammed Al Sharqi.

The study was supported by the Russian State program No. AAAA-A16-116021660095-7 (preparation of a manuscript). Investigation of the material, including preparation of illustrations, was performed on the equipment purchased with the funds of a grant of the Russian Science Foundation (No. 14-50-00029).

References

Dlabola J. 1957. Die Zikaden Afghanistans (Homopt. - Auchenorrhyncha) nach den Ergebnissen der von Herrn J. Klapperich in den Jahren 1952–1953 nach Afghanistan unternommennen Expedition // Mitt. der Münchner Entomologischen Gesellschaft, E. V. München. Bd.47. No.5. P.265–303.

Dlabola J. 1979. Insects of Saudi Arabia. Homoptera // Fauna of Saudi Arabia. Vol.1. P.115–139.

Dlabola J. 1994. Ergänzungen zur iranischen, israelischen und benachbarten Zikadenfaunen mit Beschreibungen 30 neuer Taxone (Homoptera, Auchenorrhyncha) // Acta Musei Nationalis Pragae, Series B — Historia Naturalis /Fossil Imprint (1993). Vol.49. No.1–4. P.41–110.

Hamilton K.G.A. 1983. Revision of the Macropsini and Neopsini of the New-World (Rhynchota: Homoptera: Cicadellidae), with notes on intersex morphology // Mem. Entomol. Soc. Canada. Vol.123. P.1–223.

Li H., Tishechkin D.Yu., Dai R.-H., Li Z.-Z. 2014. Taxonomic study of Chinese species of the genus *Macropsis* Lewis, 1836 (Hemiptera: Cicadellidae: Macropsinae) III: a review of oak-dwelling species // Zootaxa. Vol.3760. No.3. P.351–368. http://dx.doi.org/10.11646/zootaxa.3760.3.3.

Linnavuori R. 1976. Studies on the family Cicadellidae (Homoptera, Auchenorrhyncha). A revision of the Macropsinae of the Ethiopian Region and a new cicadellid subfamily from the Neotropical Region, Neopsinae, subfam.n. // Acta Entomol. Fenn. Vol.33. P.1–19.

Tishechkin D.Yu. 1999. Review of the species of the genus *Macropsis* Lewis, 1834 (Homoptera: Cicadellidae: Macropsinae) from the Russian Far East and adjacent territories of Transbaikalia // Russian Entomol. J. Vol.8. No.2. P.73–113.

Tishechkin D.Yu. 2002. Review of the species of the genus *Macropsis* Lewis, 1834 (Homoptera, Cicadellidae, Macropsinae) from European Russia and adjacent territories // Russian Entomol. J. Vol.11. No.2. P.123–184.

Tishechkin D.Yu. 2015. Taxonomic study of Central Asian species of the genus *Macropsis* Lewis, 1836 (Homoptera: Auchenorrhyncha: Cicadellidae: Macropsinae). III: Descriptions of two new willow-dwelling species, new synonym, annotated checklist, and key to species // Zootaxa. Vol.3985. No.1. P.31–52. http://dx.doi.org/10.11646/zootaxa.3985.1.2.

Tishechkin D.Yu. 2016. Host plant shifts and transitions into new adaptive zones in leafhoppers: the example of Macropsinae (Homoptera: Auchenorrhyncha: Cicadellidae) of Russia and adjacent countries // Zootaxa. Vol.4121. No.2. P.117–132. http://doi.org/10.11646/zootaxa.4121.2.2.